



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,360	05/15/2001	Ludwig Guenther	DE920000038US1	8762
26502	7590	09/29/2005	EXAMINER	
IBM CORPORATION IPLAW IQ0A/40-3 1701 NORTH STREET ENDICOTT, NY 13760			LIN, KENNY S	
			ART UNIT	PAPER NUMBER
			2154	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,360

Applicant(s)

GUENTHER ET AL.

Examiner

Kenny Lin

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date: 9/13/2005
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's amendment after final, mailed on 8/15/2005, presents statements that Banavar reference is commonly owned by the applicant and, therefore, is an invalid reference for 103(a) obviousness rejection. The finality of that action mailed on 6/17/2005 is, hence, withdrawn.
2. Applicant's amendment filed on 8/15/2005 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
3. Claims 1-26 are presented for examination.
4. Newly submitted claims 25-26 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 25 and 26 contain separated utilities such as “redirecting request in accordance with the second protocol to a client interceptor; said redirecting being performed by the SOCKS client using a SOCKS protocol” and “SOCKS client further adapted to redirect the request in accordance with the second protocol to a client interceptor using a SOCKS protocol” which were not presents in the original set of claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution

Art Unit: 2154

on the merits. Accordingly, claims 25-26 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 5-8, 10-12, 15-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe et al (hereinafter Pepe), US 5,673,322, in view of Gauvin et al (hereinafter Gauvin), US 5,790,800, and Gordon et al (hereinafter Gordon), US 6,671,729.

7. Pepe was cited by the applicant in the IDS. Gauvin and Gordon were cited in the previous office action.

8. As per claims 1 and 11, Pepe taught the invention substantially as claimed including a data communication method that compensates for disadvantageous characteristics of a first protocol that is used to communicate data between a client application and a server application, wherein the client application and the server application employ a second protocol that is mapped onto the first protocol (col.5, lines 48-61), said method comprising the acts of:

- a. Intercepting, by a local proxy acting on behalf of a server application, a second-protocol data communication request from a client application (col.5, lines 48-57, col.7, lines 17-23, 32-34, 66-67, col.8, lines 1-5, 16-25);
 - b. Mapping, by the local proxy, the second-protocol data communication request onto the first protocol (col.5, lines 48-59, col.7, lines 17-31, 51-60, 66-67, col.8, lines 1-5, 16-25);
 - c. Sending the communication request to a remote proxy using the first protocol (col.5, lines 48-59, col.7, lines 17-34, 66-67, col.8, lines 1-8, 16-25);
 - d. Compensating a disadvantageous characteristic of the first protocol (col.9, lines 2-67, col.10, lines 1-6), said compensating comprising ascertaining that a condition exists and respond appropriately to the condition in response to said ascertaining, said condition being a connection condition or a transmission capacity condition (col.9, lines 2-67, col.10, lines 1-6; appropriate response to failures);
 - e. Mapping, by the remote proxy, the communication request back onto the second protocol to recreate substantially the second-protocol data communication request (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33); and
 - f. Delivering the second-protocol data communication request to the server application (col.5, lines 48-61, col.7, lines 34-38, col.8, lines 6-15, 26-33).
9. Pepe further taught that proxies can be of hardware, software or implemented on a firewall (col.7, lines 1-23). Pepe did not specifically teach that the local proxy is a client interceptor, the remote proxy is the server interceptor and to eliminate the condition in response

Art Unit: 2154

to said ascertaining. However, it is obvious that since the proxies function to intercept requests, they present the functionalities and abilities of acting or being interceptors. Gauvin taught to use interceptors in intercepting the requests (col.2, lines 38-42, col.9, lines 5-7, col.12, lines 57-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe and Gauvin because Gauvin's teaching of using interceptors help to implement the proxies of Pepe's method to intercept requests and establish communications (Gauvin, col.12, lines 57-63). Gordon taught to detect that a condition exists and eliminate the condition in response to said detection (col.6, lines 62-67, col.7, lines 1-22; known technique for detecting lost connection and re-establishing connection). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Pepe, Gauvin and Gordon because Gordon's teaching of determining broken connections and reestablishing connections enables Pepe and Gauvin's method to monitor connections and re-establish the loss connections.

10. As per claims 2 and 12, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Gordon further taught that the ascertaining comprises determining loss of a connection, and wherein the eliminating comprises re-establishing the connection (col.6, lines 62-67, col.7, lines 1-22; known technique for detecting lost connection and re-establishing connection). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Pepe, Gauvin and Gordon because Gordon's teaching of determining broken connections and reestablishing connections enables Pepe and Gauvin's method to monitor connections and re-establish the loss connections.

11. As per claims 5 and 15, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the second protocol is connection oriented (TCP, col.7, lines 16-24, 32-38), and wherein the client interceptor and the server interceptor intercept a plurality of connections between the client application and the client interceptor using the second protocol (col.7, lines 32-38, 66-67, col.8, lines 1-5, 16-25), and between the server interceptor and the server application using the second protocol (col.7, lines 32-38, 66-67, col.8, lines 26-33).

12. As per claims 6 and 16, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 5 and 15. Pepe further taught wherein the plurality of connections using the second protocol are multiplexed onto a single connection of the first protocol (col.8, lines 34-43).

13. As per claims 7 and 17, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the first protocol is a wireless communication protocol (col.6, lines 65-67, col.7, lines 32-38, col.8, lines 1-5).

14. As per claims 8 and 18, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught to comprise the act of opening, by the client interceptor, a connection to the server interceptor using the first protocol following the act of intercepting the second-protocol data communication request (col.8, lines 16-33).

Art Unit: 2154

15. As per claims 10 and 20, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught that the client application and the client interceptor reside on a same computing device (col.5, lines 48-57, col.7, lines 17-23).

16. As per claims 21 and 23, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught that the client application and the client interceptor reside on different computing device (col.5, lines 48-57, col.7, lines 1-9, e.g. interceptor implemented on firewall).

17. As per claims 22 and 24, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught that the second protocol is connectionless (col.8, lines 1-5).

18. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe, Gauvin and Gordon as applied to claims 1 and 11 above, and further in view of Batra, US 6,105,067.

19. As per claims 3 and 13, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Gauvin further taught to establish communication when request is intercepted (col.2, lines 38-42, col.12, lines 57-63) and Gordon further taught to detect loss of a connection and re-establishing the connection (col.6, lines 62-67, col.7, lines 1-22; known technique for detecting lost connection and re-establishing connection). Pepe, Gauvin and

Art Unit: 2154

Gordon did not specifically teach wherein the ascertaining comprises detecting that a connection is idle, and wherein the eliminating comprises dropping the connection and re-establishing the connection. Batra taught to detect idle condition, drop connection (col.4, lines 10-21, col.11, lines 42-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Pepe, Gauvin, Gordon and Batra because Batra's teaching of determining idle period and dropping idled connections enables Pepe, Gauvin and Gordon's method to monitor more specifically and compensate more detail on the protocol, both advantageous or disadvantageous, drop and re-establish idle connections (Batra, col.4, lines 10-21, col.11, lines 42-65).

20. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe, Gauvin and Gordon as applied to claims 1 and 11 above, and further in view of van Landegem et al (hereinafter van Landegem), US 5,265,091.

21. van Landegem was cited in the previous office action.

22. As per claims 4 and 14, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claims 1 and 11. Pepe further taught wherein the ascertaining comprises determining that transmission capacity is insufficient process the data communication request (col.9, lines 26-32). Pepe, Gauvin and Gordon did not specifically teach wherein the ascertaining further comprises determining the transmission capacity to process the data communication request within a predetermined interval of time, and wherein the eliminating comprises establishing a

Art Unit: 2154

parallel connection to increase transmission capacity. van Landegem taught to determine the transmission capacity with a predetermined interval of time and to establish a parallel connection to increase transmission capacity (col.12, lines 15-40, 52-63, col.14, lines 54-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin, Gordon and van Landegem because van Landegem's teaching of determining transmission capacity and establishing parallel connection helps Pepe, Gauvin and Gordon's method to determine bandwidth availability in a periodic basis in a connectionless environment (e.g., first protocol, col.2, lines 14-19).

23. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepe, Gauvin and Gordon as applied to claim 18 above, and further in view of O'Connell et al (hereinafter O'Connell), US 6,661,787.

24. O'Connell was cited in the previous office action.

25. As per claim 9, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claim 1. Pepe further taught, opening, by the local proxy, a connection to the remote proxy using the first protocol following the act of intercepting the second-protocol data communication request (col.5, lines 48-61, col.7, lines 34-38, 59-65, col.8, lines 6-33) and Gauvin further taught, receiving, by the client interceptor, an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). Pepe, Gauvin and Gordon did not specifically teach to forward the identification to an address-resolution server for first-protocol address resolution. O'Connell

Art Unit: 2154

taught to use server identification to look up the network route and destination address using address resolution protocol (col.1, lines 55-67, col.2, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin, Gordon and O'Connell because O'Connell's teaching of address resolution using identification to look up network address enables Pepe, Gauvin and Gordon's method to identify the end station and the connection to the end station (col.1, lines 55-62).

26. As per claim 19, Pepe, Gauvin and Gordon taught the invention substantially as claimed in claim 18. Gauvin further taught to comprise the means for receiving, by the client interceptor, an identification of the server application (col.9, lines 61-67, col.10, lines 1-19). Pepe, Gauvin and Gordon did not specifically teach a means for forwarding the identification to an address-resolution server for first-protocol address resolution. O'Connell taught to use server identification to look up the network route and destination address using address resolution protocol (col.1, lines 55-67, col.2, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Pepe, Gauvin, Gordon and O'Connell because O'Connell's teaching of address resolution using identification to look up network address enables Pepe, Gauvin and Gordon's system to identify the end station and the connection to the end station (col.1, lines 55-62).

Response to Arguments

27. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

28. Applicant's amendment filed on 8/15/2005 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl
September 23, 2005



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100